

07-13-07
IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
(Case No. 03-956-US)

PATENT 1PW

In the Application of:

Brophy, et al.

Serial No.: 10/575,294

Filed: April 12, 2006

For: Novel Heat Shock Protein 20-Related
Polypeptides and Uses Therefor

Art Unit: TBD

Examiner: TBD

Confirmation No. 3701

Commissioner for Patents
P.O. Box 1450
Alexandria, Virginia 22313-1450

TRANSMITTAL LETTER

With respect to the above identified application:

1. We are transmitting herewith the attached:

- ☒ Transmittal Letter (1 sheet);
- ☒ Information Disclosure Statement (IDS) (5 sheets);
- ☒ IDS Form 1449 (4 sheets);
- ☒ Copy of Cited References numbered (4-40).
- ☒ Itemized Postcard

2. With respect to fees:

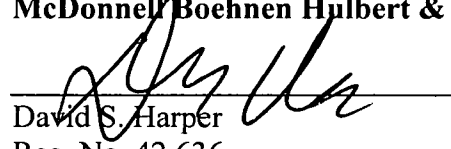
- ☒ No fee is required.

3. Please charge any additional fees or credit overpayment to Deposit Account No. 13-2490.
A duplicate copy of this sheet is enclosed.

4. **CERTIFICATE OF MAILING UNDER 37 CFR § 1.10:** The undersigned hereby certifies that this Transmittal Letter and the papers, as described herein-above, are being deposited with the United States Postal Service with sufficient postage as "Express Mail Post Office to Addressee" in an envelope addressed to: Commissioner for Patents, PO Box 1450, Alexandria, VA 22313-1450, on this 12th day of July, 2007.
Express Mail No. **EV840508124US**.

Respectfully Submitted,
McDonnell Boehnen Hulbert & Berghoff LLP

By


David S. Harper
Reg. No. 42,636



PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
(Case No. 03-956-US)

In the Application of:

Brophy, et al.

Serial No.: 10/575,294

Filed: April 12, 2006

For: Novel Heat Shock Protein 20-Related
Polypeptides and Uses Therefor

Art Unit: TBD

Examiner: TBD

Confirmation No. 3701

INFORMATION DISCLOSURE STATEMENT

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Sir:

Pursuant to 37 C.F.R. Section 1.97 - 1.99, the Applicant wishes to make the following references of record in the above-identified application. This Information Disclosure Statement is in compliance with the continuing duty of candor as set forth in 37 C.F.R. Section 1.56. Copies of the references cited below are enclosed. These references are also listed on the enclosed PTO Form 1449.

In the judgment of the undersigned, portions of the listed references may be material to the Examiner's consideration of the presently pending claims. However, the references have not been reviewed in sufficient detail to make any other representation and, in particular, no representation is intended as to the relative relevance between references, whether cited in this or prior statements. This statement is not a representation that the listed references have effective dates early enough to be "prior art" within the meaning of 35 U.S.C. Section 102 or Section 103.

This Information Disclosure Statement is being filed:

- ☐ within three months of the filing date of a national application; within three months of the date of entry into the national stage as set forth in 37 C.F.R. § 1.491 in an international application; or before the mailing date of a first Office Action on the merits. 37 C.F.R. § 1.97 (b)
- ☐ **after** three months of the filing date of a national application, or the date of entry into the national stage as set forth in 37 C.F.R. § 1.491 in an international application; or **after** the mailing date of a first Office Action on the merits, but **before** the mailing date of a Final Action under 37 C.F.R. § 1.113 or a Notice of Allowance under 37 C.F.R. § 1.311 (whichever occurs first), and includes (37 C.F.R. § 1.97 (c):
- ☐ the Certification under 37 C.F.R. § 1.97(e) (see “Certification” below)

OR

- ☐ the fee of \$180.00 set forth in 37 C.F.R. § 1.17(p) (see “Fees” below).
- ☐ **after** a Final Action under 37 C.F.R. § 1.113 or a Notice of Allowance under 37 C.F.R. § 1.311 (whichever occurs first), but before, or simultaneously with, the payment of the issue fee, and includes the Certification under 37 C.F.R. § 1.97(e) (see “Certification” below), and the Petition Fee set forth in 37 C.F.R. § 1.17(i) (see “Fees” and “Method of Payment of Fees” below). Applicants hereby petitions for consideration of the Information Disclosure Statement submitted herewith and the accompanying references in examination of the subject patent application.

CERTIFICATION

- ☐ The **undersigned** hereby certifies that each item of information contained in the Information Disclosure Statement was cited in a communication from a foreign patent office in a counterpart foreign patent application not more than three months prior to the filing of the Information Disclosure Statement.
- ☐ The **undersigned** hereby certifies that no item of information contained in the Information Disclosure Statement was cited in a communication from a foreign patent office in a counterpart foreign patent application or, to the knowledge of the person signing the certification after making reasonable inquiry, was known to any individual designated in 37 C.F.R. § 1.56(c) more than three months prior to the filing of the Information Disclosure Statement.

FEES



No fee is owed by the applicant(s).

The **IDS Fee of \$180.00** under 37 C.F.R. § 1.17(p) is enclosed herewith.


METHOD OF PAYMENT OF FEES



Attached is a check in the amount of \$180.00

CERTIFICATE OF MAILING VIA EXPRESS MAIL DELIVERY under 37 C.F.R. § 1.10. I hereby certify that the attached paper of fee is being deposited with the United States Postal Service "Express Mail Post Office to Addressee" Service under 37 C.F.R. § 1.10 on the date indicated above and is addressed to Commissioner for Patents, Box 1450, Alexandria, VA, 22313-1450, on this 2nd day of JULY, 2007. Express Mail No. EV840508124US.

Respectfully submitted,



David S. Harper
Registration No. 42,636

US Patent Documents

1. Brophy, et al., US Publication No. 2003-0060399, published March 27, 2003
2. Brophy, et al., US Patent No. 7,135,453, Issued November 14, 2006
3. Panitch, et al., US Publication No. 2003-0190364, published October 9, 2003.

Foreign Patent Documents

4. W0 2004-017912 published March 4, 2004
5. WO 2004-075914, published September 10, 2004
6. WO 2003-018758, published March 6, 2003

Other Documents

7. S Fawell et al., Proc Natl Acad Sci USA 91: 664-668, 1994
8. Maurice Green et al., Cell 55 : 1179-1188, 1988
9. Alan D. Frankel et al., Cell 55 : 1189-1193, 1988
10. Steven R. Schwarze et al., Science 285: 1569-1572, 1999
11. Mudit Tyagi et al., J Biol Chem 276 : 3254-3261, 2001
12. Alan Ho et al., Cancer Res 61: 474-477, 2001

13. G. J. Ramakers, W. H. Moolenaar, *Exp. Cell Res.* 245,252 (1998).
14. A. Beall et al., *J. Biol. Chem.* 274 (16),11344 (1999).
15. C. R. Flynn et al., *Faseb J.* 17, 1358 (2003).
16. C. S. Heacock, J. R. Bamburg, *Anal. Biochem.* 135,22 (1983).
17. J. E. Murphy-Ullrich, S. Gurusiddappa, W. A. Frazier, M. Hook, *J. Biol. Chem.* 268, 26784 (1993).
18. J. E. Murphy-Ullrich et al., *J. Cell. Sci.* 109,2499 (1996).
19. R. Niwa, K. Nagata-Ohashi, M. Takeichi, K. Mizuno, T. Uemura, *Cell* 108,233 (2002).
20. A. Gohla, G. M. Bokoch, *Curr. Biol.* 12(19), 1704 (2002).
21. H. Fu, R. R. Subramanian, S. C. Masters, *Annu. Rev. Pharmacol. Toxicol.* 40,617 (2000).
22. M. B. Yaffe et al., *Cell* 91, 961 (1997).
23. S. H. Zhang, R. Kobayashi, P. R. Graves, H. Piwnicka-Worms, and N. K. Tonks, *J Biol. Chem.* 272, 27281 (1997).
24. M. P. Washburn, D. Wolters, J. R. Yates III, *Nat. Biotechnol.* 19,242 (2001).
25. S. D. Macomson, C. M. Brophy, W. Miller, V. A. Harris, E. G. Shaver, *Neurosurgery* 51,204 (2002).
26. Birkenfeld J et al., *Biochem J.* 369(Pt1): 45-54 (2003)
27. Jens Pfannstiel et al., *J. Biol. Chem.* 276(52): 49476-49484 (2001)
28. Ghosh M. et al., *Science* 304: 743-746 (2004)
29. Bertling E et al., *Mol. Biol. Cell* 15: 2324-2334 (2004)
30. Wilker E. et al., *J. Mol. Cell Cardiol.* 37(3): 633-642 (2004)
31. Eibert SM et al., *Proc Natl Acad Sci USA* 101(7): 1957-1962 (2004)
32. Paavilainen VO et al., *J. Biol. Chem.* 277(45): 43089-43095 (2002)
33. Shen YH et al., *Mol Biol. Cell* 14: 4721-4733 (2003)
34. Morris MC et al., *J. Biol. Chem.* 275(37): 28849-28857 (2000)
35. Rembold et al., *J. Appl. Physiol* 91:1460-1466 (2001)
36. Wang et al., *Diabetes* 50:1821-1827
37. Beall et al., *J. Biol Chem.* 272(17): 11283-11297 (1997)
38. Brophy et al., *J. Biol Chem.*, 274(10): 6324-6329 (1999)
39. Kanefusa Kato et al., *J. Biol. Chem.* 269(21): pp. 15302-15309 (1994)
40. Dreiza Catherine et al., *FASEB J. express article* 10.1096/fj.04-2911fje. Published online December 14, 2004.

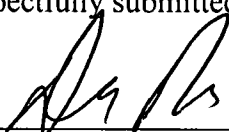
In accordance with MPEP Sections 609 and 707.05(b), it is requested the document cited (including any cited in applicant's specification which is not repeated on the attached Form PTO-1449) be given thorough consideration and that it be cited of record in the prosecution history of the present application by initialing on Form PTO-1449. Such initialing is requested even if the Examiner does not consider a cited document to be sufficiently pertinent to use in a rejection, or otherwise does not consider it to be prior art for any reason, or even if the Examiner does not believe that the guidelines for citation have been fully complied with. This is requested so that each document becomes listed on the face of the patent issuing on the present application.

Date:

7/12/07

Respectfully submitted,

By:



David S. Harper

Reg. No. 42,636

McDonnell, Boehnen Hulbert & Berghoff LLP

300 South Wacker Drive, Suite #3100

Chicago, IL 60606

FORM PTO-1449
(Rev. 2-32)

U.S. Department of Commerce
Patent and Trademark Office



**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT**

(Use several sheets if necessary)

Atty. Docket No.

03-956-US

Serial No.

10/575,294

Applicant:

Brophy, et al.

Filing Date:

April 12, 2006

Group:

To be assigned

U.S. PATENT DOCUMENTS

Examiner Initial		Document Number	Date	Name	Class	Subclass	Filing Date if Appropriate
/AG/	1.	2003-0060399	March 27, 2003	Brophy, et al.			
/AG/	2.	7,135,453	November 14, 2006	Brophy, et al.			
/AG/	3.	2003-0190364	October 9, 2003	Panitch, et al.			

FOREIGN PATENT DOCUMENTS

Examiner Initial		Document Number	Date	Country	Class	Subclass	Translation	
							Yes	No
/AG/	4.	WO 2004-017912	03/04/2004	WIPO				
/AG/	5.	WO 2004-075914	09/10/2004	WIPO				
/AG/	6.	WO 2003-018758	March 6, 2003	WIPO				

EXAMINER

/Anish Gupta/

DATE CONSIDERED

09/13/2010

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication.

FORM PTO-1449
(Rev. 2-32)

U.S. Department of Commerce
Patent and Trademark Office

Atty. Docket No.

03-956-US

Serial No.

10/575,294

**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT**

(Use several sheets if necessary)

Applicant:

Brophy, et al.

Filing Date:

April 12, 2006

Group:

To be assigned

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc).

Examiner Initial		
/AG/	7.	S Fawell et al., Proc Natl Acad Sci USA 91: 664-668, 1994
	8.	Maurice Green et al., Cell 55 : 1179-1188, 1988
	9.	Alan D. Frankel et al., Cell 55 : 1189-1193, 1988
	10.	Steven R. Schwarze et al., Science 285: 1569-1572, 1999
	11.	Mudit Tyagi et al., J Biol Chem 276 : 3254-3261, 2001
	12.	Alan Ho et al., Cancer Res 61: 474-477, 2001
	13.	G. J. Ramakers, W. H. Moolenaar, Exp. Cell Res. 245, 252 (1998).
	14.	A. Beall et al., J. Biol. Chem. 274 (16), 11344 (1999).
	15.	C. R. Flynn et al., Faseb J. 17, 1358 (2003).
	16.	C. S. Heacock, J. R. Bamburg, Anal. Biochem. 135, 22 (1983).
	17.	J. E. Murphy-Ullrich, S. Gurusiddappa, W. A. Frazier, M. Hook, J. Biol. Chem. 268, 26784 (1993).
	18.	J. E. Murphy-Ullrich et al., J. Cell. Sci. 109, 2499 (1996).
/AG/	19.	R. Niwa, K. Nagata-Ohashi, M. Takeichi, K. Mizuno, T. Uemura, Cell 108, 233 (2002).

EXAMINER

/Anish Gupta/

DATE CONSIDERED

09/13/2010

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication.

FORM PTO-1449
(Rev. 2-32)

U.S. Department of Commerce
Patent and Trademark Office

Atty. Docket No.

03-956-US

Serial No.

10/575,294

INFORMATION DISCLOSURE
STATEMENT BY APPLICANT

(Use several sheets if necessary)

Applicant:

Brophy, et al.

Filing Date:

April 12, 2006

Group:

To be assigned

/AG/	20.	A. Gohla, G. M. Bokoch, Curr. Biol. 12(19), 1704 (2002).
	21.	H. Fu, R. R. Subramanian, S. C. Masters, Annu. Rev. P7zarmacol. Toxicol. 40,617 (2000).
	22.	M. B. Yaffe et al., Cell 91, 961 (1997).
	23.	S. H. Zhang, R. Kobayashi, P. R. Graves, H. Piwnica-Worms, and N. K. Tonks, J Biol. Chem. 272, 27281 (1997).
	24.	M. P. Washburn, D. Wolters, J. R. Yates III, Nat. Biotechnol. 19,242 (2001).
	25.	S. D. Macomson, C. M. Brophy, W. Miller, V. A. Harris, E. G. Shaver, Neurosurgery 51,204 (2002).
	26.	Birkenfeld J et al., Biochem J. 369(Pt1): 45-54 (2003)
	27.	Jens Pfannstiel et al., J. Biol. Chem. 276(52): 49476-49484 (2001)
	28.	Ghosh M. et al., Science 304: 743-746 (2004)
	29.	Bertling E et al., Mol. Biol. Cell 15: 2324-2334 (2004)
	30.	Wilker E. et al., J. Mol. Cell Cardiol. 37(3): 633-642 (2004)
	31.	Eibert SM et al., Proc Natl Acad Sci USA 101(7): 1957-1962 (2004)
	32.	Paavilainen VO et al., J. Biol. Chem. 277(45): 43089-43095 (2002)
	33.	Shen YH et al., Mol Biol. Cell 14: 4721-4733 (2003)
↓ /AG/	34.	Morris MC et al., J. Biol. Chem. 275(37): 28849-28857 (2000)

EXAMINER

/Anish Gupta/

DATE CONSIDERED

09/13/2010

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication.

FORM PTO-1449
(Rev. 2-32)

U.S. Department of Commerce
Patent and Trademark Office

Atty. Docket No.

03-956-US

Serial No.

10/575,294

**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT**

(Use several sheets if necessary)

Applicant:

Brophy, et al.

Filing Date:

April 12, 2006

Group:

To be assigned

/AG/	35.	Rembold et al., J. Appl. Physiol 91:1460-1466 (2001)
↓	36.	Wang et al., Diabetes 50:1821-1827
↓	37.	Beall et al., J. Biol Chem. 272(17): 11283-11297 (1997)
↓	38.	Brophy et al., J. Biol Chem., 274(10): 6324-6329 (1999)
↓	39.	Kanefusa Kato et al., J. Biol. Chem.. 269(21): pp. 15302-15309 (1994)
↓ /AG/	40.	Dreiza Catherine et al., FASEB J. express article 10.1096/fj.04-2911fje. Published online December 14, 2004.

EXAMINER

/Anish Gupta/

DATE CONSIDERED

09/13/2010

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication.